

- 11 -

**[CLAIMS]**

1. A method of correcting a signal representation of a radiation  
5 image of an object comprising the steps of
  - storing a matrix of correction values in a memory device, said  
correction values being obtained by read out of an image stored  
by a radiation detector that has been subjected to a flat field  
exposure,
  - 10 - exposing said radiation detector to a radiation image of an  
object,
  - generating for each pixel of said radiation image of said object  
a signal representation of the pixel value, characterised in that
  - immediately following generation of said signal representation of  
15 a pixel value, the signal representation is applied to a  
processing unit,
  - simultaneously a correction value pertaining to said pixel is  
read from said memory and applied to said processing unit,
  - said signal representation is corrected by means of said  
20 correction value in said processing unit.
  
2. An apparatus for generating a radiation image of an object  
comprising
  - image acquisition means for detecting a radiation image of said  
25 object by means of a radiation detector and for generating an  
electric signal representation of pixel values of said radiation  
image,
  - memory means for storing a matrix of correction values obtained  
by read out of a radiation image stored by a radiation detector  
30 that has been subjected to a flat field exposure,
  - a hard ware signal processing unit having a first and a second  
input,
    - said first input being coupled to said image acquisition means  
for consecutively receiving the electric signal representation  
35 of individual pixel values of said radiation image of an object

- 12 -

immediately following generation of said electric signal representation and

- said second input being coupled to said memory device for simultaneously receiving a corresponding correction value  
5       retrieved from said memory device,
- said hard ware signal processing unit for correcting a pixel value received at said first input by means of a corresponding correction value simultaneously received at said second input.

10   3. An apparatus according to claim 2 wherein said signal processing unit is a digital signal processing unit and said first input is coupled to said image acquisition means via an analog-to-digital converter.

15   4. An apparatus according to claim 2 wherein said signal processing unit is an analog signal processing unit and said memory is coupled to said image acquisition means via a digital-to-analog converter.

5. An apparatus according to claim 2 wherein said image acquisition  
20   means is arranged for double-sided reading of a radiation detector.

6. An apparatus according to claim 3 wherein said radiation detector is a photostimulable phosphor screen.

25   7. An apparatus according to claim 2 provided with a low pass filter for filtering said matrix of correction values.

8. An apparatus according to claim 2 wherein said matrix of  
correction values has a lower number of pixels than the detected  
30   radiation image and wherein identical correction values is applied to at least some different pixels.

■